

**RE: Revised exposure files**

**Krista Christensen** to: Hilbert, Timothy (hilbertj)

02/13/2013 12:48 PM

From: Krista Christensen/DC/USEPA/US

To:

Cc: Bob Benson/R8/USEPA/US@EPA, "Borton, Eric (bortonek)" <BORTONEK@UCMAIL.UC.EDU>, "brattin@srcinc.com" <brattin@srcinc.com>, David Berry/R8/USEPA/US@EPA, Thomas Bateson/DC/USEPA/US@EPA, Leonid Kopylev/DC/USEPA/US@EPA

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Thanks for checking into this, Tim. Just to clarify, the corrections for the 4 workers are new, i.e., the estimates will be different in this file compared to all past files? What were the corrections made for these workers?

Krista

"Hilbert, Timothy (hilbertj)" ---02/13/2013 01:20:52 PM---Bob and Krista, The discrepant observations you (Krista) noted were due to the corrections made in t

From: "Hilbert, Timothy (hilbertj)" <HILBERTJ@UCMAIL.UC.EDU>

To: Krista Christensen/DC/USEPA/US@EPA, Bob Benson/R8/USEPA/US@EPA

Cc: "Borton, Eric (bortonek)" <BORTONEK@UCMAIL.UC.EDU>, Thomas Bateson/DC/USEPA/US@EPA, David Berry/R8/USEPA/US@EPA, "brattin@srcinc.com" <brattin@srcinc.com>

Date: 02/13/2013 01:20 PM

Subject: RE: Revised exposure files

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Bob and Krista,

The discrepant observations you (Krista) noted were due to the corrections made in the Feb 12 file. In the process of confirming this we also cleaned up the employment history of 4 workers. The attached file will reflect the changes for these 4 workers in both the AM and GM based estimates.

Let me know if you see anything else suspicious.

Thanks

Tim

**From:** Christensen.Krista@epamail.epa.gov [mailto:Christensen.Krista@epamail.epa.gov]

**Sent:** Wednesday, February 13, 2013 10:33 AM

**To:** Benson.Bob@epamail.epa.gov

**Cc:** Hilbert, Timothy (hilbertj); Borton, Eric (bortonek); Bateson.Thomas@epamail.epa.gov; Berry.David@epamail.epa.gov; brattin@srcinc.com

**Subject:** RE: Revised exposure files

Hi Bob-

Yes, that could be a source of the difference. It was not clear to me whether the number of significant digits was different in the Dec 26 vs. Feb 12 file, from the previous email. I am hopeful that Tim can clarify that

question and confirm which estimates are 'correct.'

Thanks,  
Krista

▼ Bob Benson---02/13/2013 10:07:31 AM---If UC changed the number of significant digits used in the calculation and removed an incorrect mult

From: Bob Benson/R8/USEPA/US  
To: Krista Christensen/DC/USEPA/US@EPA  
Cc: "Hilbert, Timothy (hilbertj)" <[HILBERTJ@UCMAIL.UC.EDU](mailto:HILBERTJ@UCMAIL.UC.EDU)>, "Borton, Eric (bortonek)" <[BORTONEK@UCMAIL.UC.EDU](mailto:BORTONEK@UCMAIL.UC.EDU)>, Thomas Bateson/DC/USEPA/US@EPA, David Berry/R8/USEPA/US@EPA, [brattin@srcinc.com](mailto:brattin@srcinc.com)  
Date: 02/13/2013 10:07 AM  
Subject: RE: Revised exposure files

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If UC changed the number of significant digits used in the calculation and removed an incorrect multiplier to generate the Feb 12 file, it is not surprising that the new file (Feb 12) does not match the Dec 26 and Feb 7 files. What is your assumption about which one is "correct?" I would conclude that the Feb 12 file is the "correct" one.

▼ Krista Christensen---02/13/2013 05:33:16 AM---Hi Tim - Thank you for the revised files; I put the new estimates into Bill Brattin's Excel file, to

From: Krista Christensen/DC/USEPA/US  
To: "Hilbert, Timothy (hilbertj)" <[HILBERTJ@UCMAIL.UC.EDU](mailto:HILBERTJ@UCMAIL.UC.EDU)>,  
Cc: Bob Benson/R8/USEPA/US@EPA, "Borton, Eric (bortonek)" <[BORTONEK@UCMAIL.UC.EDU](mailto:BORTONEK@UCMAIL.UC.EDU)>, Thomas Bateson/DC/USEPA/US@EPA  
Date: 02/13/2013 05:33 AM  
Subject: RE: Revised exposure files

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Hi Tim -

Thank you for the revised files; I put the new estimates into Bill Brattin's Excel file, to sum exposure estimates within each year/season combination for each individual. As before, the AM-based estimates are the same as those from the Dec 26 file, for 1972 and later. There are still differences in the GM-based estimates, although the number is fewer. Comparing the Dec 26 and Feb 7 files, there were >3000 discrepant observations. Comparing the Dec 26 and Feb 12 files, there are 465 discrepant observations. For example, ID 10093 had an estimate of 0.004250 f/cc in spring of 1977 in the Dec 26 file, and an estimate of 0.004686 in the Feb 12 file.

If it's helpful I can send the excel file and SAS program I'm working with, just let me know.

Thanks,  
Krista

▼ "Hilbert, Timothy (hilbertj)" ---02/12/2013 03:05:20 PM---Hi Bob and Krista, Attached is an updated table. We have made 2 small changes to the GM table. Fir

From: "Hilbert, Timothy (hilbertj)" <[HILBERTJ@UCMAIL.UC.EDU](mailto:HILBERTJ@UCMAIL.UC.EDU)>

To: Bob Benson/R8/USEPA/US@EPA, Krista Christensen/DC/USEPA/US@EPA  
Cc: "Borton, Eric (bortonek)" <[BORTONEK@UCMAIL.UC.EDU](mailto:BORTONEK@UCMAIL.UC.EDU)>  
Date: 02/12/2013 03:05 PM  
Subject: RE: Revised exposure files

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Hi Bob and Krista,

Attached is an updated table. We have made 2 small changes to the GM table. First, for 1977 the exposure value used to derive the CHEEQ was rounded at two decimal places in the Feb 7 datafile. It is now carried out further. The other was a multiplier that was inadvertently left in the formula for Spring work in packaging and warehouse. This has been removed.

See if this resolves the issues you discovered and please let us know if you identify other concerns.

Thanks  
Tim Hilbert  
UC

**From:** [Benson.Bob@epamail.epa.gov](mailto:Benson.Bob@epamail.epa.gov) [<mailto:Benson.Bob@epamail.epa.gov>]  
**Sent:** Tuesday, February 12, 2013 11:00 AM  
**To:** Hilbert, Timothy (hilbertj)  
**Cc:** [Berry.David@epamail.epa.gov](mailto:Berry.David@epamail.epa.gov)  
**Subject:** Fw: Revised exposure files

Tim,  
See message from Krista below. Bill is on vacation. Can you and Eric provide an explanation for these discrepancies?

Let me know if you need the files Krista deleted.

----- Forwarded by Bob Benson/R8/USEPA/US on 02/12/2013 08:57 AM -----

From: Krista Christensen/DC/USEPA/US  
To: Bob Benson/R8/USEPA/US@EPA,  
Cc: [brattin@srcinc.com](mailto:brattin@srcinc.com), David Berry/R8/USEPA/US@EPA, Leonid Kopylev/DC/USEPA/US@EPA, Thomas Bateson/DC/USEPA/US@EPA  
Date: 02/11/2013 09:03 AM  
Subject: Re: Fw: Revised exposure files

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Hi Bob-

thanks for sending the revised files, I had a couple of questions. I'm using the sheets labeled "AM-based exposure values" and 'GM-based exposure values' and comparing between the files you sent Feb 7, and those sent Dec 26. There are discrepancies in the data from 1972 and later for the GM-based estimates. For example, ID 10093 had a value of 0.00425 f/cc in spring of 1977 in the Dec 26 datafile, but a value of 0.01724 in the Feb 7 datafile, and ID 13200 had GM-based value of 0.0062092 (Dec 26) and 0.009314 (Feb 7) for spring of 1973. Actually, most of the discrepancies appear for the spring seasons, although there are some cases of mismatch for summer and fall, too. Do you know what the source of the difference might be? I didn't see any discrepancies for the 1972+ AM-based estimates.

Krista

▼ Bob Benson---02/07/2013 04:13:40 PM---Here are the new tables with the change in LA/SC ratio based on the corrected IH data. ----- Forward

From: Bob Benson/R8/USEPA/US  
To: Thomas Bateson/DC/USEPA/US@EPA, Krista Christensen/DC/USEPA/US@EPA, Leonid Kopylev/DC/USEPA/US@EPA  
Cc: [brattin@srcinc.com](mailto:brattin@srcinc.com), David Berry/R8/USEPA/US@EPA  
Date: 02/07/2013 04:13 PM  
Subject: Fw: Revised exposure files

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Here are the new tables with the change in LA/SC ratio based on the corrected IH data.

----- Forwarded by Bob Benson/R8/USEPA/US on 02/07/2013 02:08 PM -----

From: "Brattin, Bill" <[brattin@srcinc.com](mailto:brattin@srcinc.com)>  
To: Bob Benson/R8/USEPA/US@EPA,  
Cc: David Berry/R8/USEPA/US@EPA  
Date: 02/07/2013 01:32 PM  
Subject: Revised exposure files

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Here are revised exposure files that can be sent to NCEA.  
These reflect the change in the LA/SC ration for 10: 1 to 8.7:1.

As expected, changes only occur for exposures prior to 1972, and changes are relatively small.

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[attachment "winmail.dat" deleted by Krista Christensen/DC/USEPA/US] [attachment "AM Data for Fitting NCEA Copy v2.xlsx" deleted by Krista Christensen/DC/USEPA/US] [attachment "NEW GM Data for Fitting NCEA copy v2.xlsx" deleted by Krista Christensen/DC/USEPA/US] [attachment "Cohort\_SRC\_AMGM\_02122013.xlsx" deleted by Krista Christensen/DC/USEPA/US] [attachment "Cohort\_SRC\_AMGM\_02132013.xlsx" deleted by Krista Christensen/DC/USEPA/US]